AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions of claims in the application.

1 - 41. (Canceled).

42. (Currently Amended) An oligonucleotide comprising at least one concatenation coding for a polypeptide with formula $(P\text{-}K)_n$, where:

n is equal to 3, or more ~~a whole number of 2 or more~~;

P represents a proline amino acid residue;

K represents a lysine amino acid residue;

the symbol "-" represents a bond between the two amino acid residues, in particular a peptide-type bond, the n (P-K) units also being bonded together by such bonds, for example peptide-type bonds.

43. (Currently Amended) The oligonucleotide according to claim 42, comprising a concatenation coding for a polypeptide with formula $(P\text{-}K)_n$, where n is a whole number ~~of 3 or more, and preferably n is~~ equal to 3, 4, 5, 6, 7, 8, 9, 10, or 15.

44. (Previously Presented) The oligonucleotide according to claim 42, comprising a concatenation coding for a polypeptide with formula $(P\text{-}K)_n$, in which the sequence of n (P-K) units is interrupted by one or more amino acid residues other than P or K residues.

45. (Previously Presented) The oligonucleotide according to claim 42, wherein the concatenation coding for the polypeptide comprising the n (P-K) units is completed at its 5' end and/or at its 3' end by one or more codons coding for at least one lysine residue at the N-terminal extremity of the formed polypeptide.

46. (Currently Amended) The oligonucleotide according to claim 45, which codes

for a polypeptide with ~~formula (P-K),~~ formula $K-(P-K)_4$ or with formula $2K(P-K)_4$.

47. (Currently Amended) A recombinant nucleotide sequence comprising a concatenation of nucleotides coding for a plant protein reserve having in its primary structure, tandem repeats which are rich in proline-type amino acid residues, and which further comprises an oligonucleotide according to any one of claims 42 to 46, inserted at one site of the nucleotide concatenation selected such that:

i) expression of the nucleotide sequence in a particular plant cell enables a modified protein reserve to be produced, wherein said reserve is localized in that cell in a manner identical to or similar to the normal protein reserve which would be expressed in the same cell under the same conditions by the corresponding normal coding nucleotide concatenation; and/or

ii) the modified protein reserve coded by the recombinant nucleotide sequence is immunologically recognized by antibodies produced against the corresponding normal protein reserve.

48. (Previously Presented) The nucleotide sequence according to claim 47, wherein the coding nucleotide concatenation codes for a protein reserve which is naturally low in lysine.

49. (Previously Presented) The nucleotide sequence according to claim 48, wherein the coding nucleotide concatenation codes for a protein reserve naturally produced by a plant for use in animal or human foodstuffs.

50. (Previously Presented) The nucleotide sequence according to claim 48, wherein the coding nucleotide concatenation codes for a protein reserve naturally produced by a plant from the cereal family.

51. (Withdrawn) The nucleotide sequence according to claim 48, wherein the coding nucleotide concatenation codes for a protein reserve naturally produced by a plant from the legume or crucifer family.

52. (Previously Presented) The nucleotide sequence according to claim 50, wherein the coding nucleotide concatenation codes for a maize protein reserve.

53. (Previously Presented) The nucleotide sequence according to claim 52, wherein the coding nucleotide concatenation codes for a protein reserve from the zein family.

54. (Previously Presented) The nucleotide sequence according to claim 53, wherein the coding nucleotide concatenation codes for a protein reserve which is maize γ-zein.

55. (Previously Presented) The nucleotide sequence according to claim 54, wherein the nucleotide concatenation coding for the maize γ-zein has the sequence shown in Figure 9.

56. (Withdrawn) The nucleotide sequence according to claim 48, wherein the coding nucleotide concatenation codes for a protein reserve of a plant selected from the following: soya, sunflower, tobacco, wheat, oats, alfalfa, rice, oilseed rape, sorghum, and *Arabidopsis thaliana*.

57. (Previously Presented) The nucleotide sequence according to claim 47, wherein the protein reserve encoded by the coding nucleotide concatenation is maize γ-zein, and wherein the oligonucleotide is inserted in place of or following a Pro-X domain or in a Pro-X domain naturally present in the maize γ-zein.

58. (Previously Presented) A recombinant nucleotide sequence, which comprises a nucleotide sequence according to claim 47 under the control of an expression promoter.

59. (Previously Presented) The recombinant nucleotide sequence according to claim 58, wherein the promoter is a specific promoter for a given cell tissue, for example a promoter which is specific for expression in grains, and/or in the leaves of plants.

60. (Previously Presented) The nucleotide sequence according to claim 58, wherein the expression promoter is that of maize γ-zein.

61. (Previously Presented) The nucleotide sequence according to claim 58, wherein the expression promoter is the promoter CaMV35S.

62. (Previously Presented) The nucleotide sequence according to claim 57, which codes for one of the polypeptides P20γZ or H45γZ with the sequences shown in Figures 11 and 10, respectively.

63 (Previously Presented) A cloning and/or expression vector, which comprises, at a site which is not essential for replication, a nucleotide sequence in accordance with claim 47.

64. (Previously Presented) A cloning and/or expression vector, which is one of plasmids pP20γZ (CNCM N° I-1640), pH30γZ or pH45γZ (CNCM N° I-1639).

65. (Withdrawn) A polypeptide coded by a sequence according to claim 47.

66. (Withdrawn) A lysine-enriched modified maize γ-zein, which is coded by a

nucleotide sequence according to claim 54.

67. (Withdrawn) A lysine-enriched modified maize γ-zein, the amino acid sequence of which is modified by at least one polypeptide with formula $(P\text{-}K)_n$ or with formula $2K(P\text{-}K)_n$, where:

n is a whole number of 2 or more;

P represents a proline amino acid residue;

K represents a lysine amino acid residue;

the symbol "-" represents a bond between the two amino acid residues, in particular a peptide type bond, the n (P-K) units being bonded together by bonds, in particular peptide type bonds, said polypeptide having formula $(P\text{-}K)_n$ or $K\text{-}(P\text{-}K)_n$ being substituted for a sequence naturally present in the normal maize γ-zein or being inserted with deletion of one or more amino acids of the amino acid sequence for normal maize γ-zein, or being added to the normal γ-zein amino acid sequence, the insertion site for the polypeptide being selected such that:

when the modified lysine-rich γ-zein is produced in a host cell, in particular in a plant cell, it is localized in identical or similar manner to the normal maize γ-zein which would be produced under the same conditions in the same host cell; and/or the modified maize γ-zein is recognized by antibodies directed against the normal maize γ-zein.

68. (Withdrawn) The modified maize γ-zein according to claim 67, which is the protein P20γZ or the protein H30γZ or the protein H45γZ.

69. (Previously Presented) A recombinant host cell, which comprises a nucleotide sequence according to claim 47.

70. (Previously Presented) The host cell according to claim 69, which is a bacterium, for example *E. coli* or *Agrobacterium tumefaciens*.

71. (Previously Presented) The host cell according to claim 69, which is a plant cell.

72. (Previously Presented) The host cell according to claim 71, which is a plant seed cell.

73. (Previously Presented) The host cell according to claim 72, which is a cell from maize seed endosperm.

74. (Previously Presented) The host cell according to claim 73, which contains a nucleotide sequence according to claim 54, integrated in its genome in a stable manner.

75. (Currently Amended) The host cell according to claim 73, which produces a lysine-enriched modified maize γ-zein encoded by the nucleotide sequence according to claim 54. ~~according to claim 67.~~

76. (Withdrawn) The host cell according to claim 71, which is a soya, sunflower, tobacco, wheat, oats, alfalfa, rice, oilseed rape, sorghum or *Arabidopsis* cell.

77. (Currently Amended) Seeds producing a polypeptide encoded by the recombinant nucleotide sequence according to claim 47. ~~according to any one of claims 65 to 68.~~

78. (Currently Amended) A plant producing a polypeptide encoded by the recombinant nucleotide sequence according to claim 47. ~~according to any one of claims~~

~~65 to 68.~~

79. (Previously Presented) The plant according to claim 78, which is a maize plant.

80. (Previously Presented) Seeds obtained from plants according to claim 78.

81. (Previously Presented) A method of producing plants or seeds expressing a modified protein reserve, which comprises the steps of:

a) transforming a plant cell with a nucleotide sequence according to claim 47, or a vector according to claim 63, under conditions enabling the modified protein reserve coded by the nucleotide sequence to be expressed in a stable and functional manner;

b) regenerating plants from the plant cell transformed in step a), to obtain plants expressing the modified protein reserve;

c) if necessary, obtaining seeds from the modified plants obtained in step b).

82. (Previously Presented) The method according to claim 81, wherein the plant is maize and the protein reserve is γ-zein.

83. (New) The nucleotide sequence according to claim 47, wherein the oligonucleotide is inserted following or in place of a primary structure having tandem repeats rich in proline residues.